UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,548	01/09/2002	Peng Chum Loh	5196-000003	4658

7590 08/19/2003

15

Harness Dickey & Pierce
PO Box 828
Bloomfield Hills, MI 48303

EXAMINER
WILKINS III, HARRY D

ART UNIT	PAPER NUMBER
1742	

DATE MAILED: 08/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/890,548	Applicant(s) LOH, PENG CHUM
	Examiner Harry D Wilkins, III	Art Unit 1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-11 and 13-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-11 and 13-15* is/are rejected.

7)☒ Claim(s) *1-6,8-11 and 13-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. Claims 1-6, 8-11 and 13-15 are presently pending.

Specification

2. The disclosure is objected to because of the following informalities: throughout the specification, the word "jewellery" should be replaced with its proper English spelling "jewelry". Appropriate correction is required.

Claim Objections

3. Claims 1-6, 8-11 and 13-15 are objected to because of the following informalities: throughout the specification, the word "jewellery" should be replaced with its proper English spelling "jewelry". Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takiguchi (JP 59-093847).

Regarding claim 1, Takiguchi teaches (see English abstract) a purple colored Au-Al alloy for jewelry that contains 15-30 wt% Al with the remainder being Au. It would have been within the expected skill of a routineer in the art to have optimized the amount of Al present within the broad range of Takiguchi. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or

workable ranges by routine experimentation. See In re Aller, 220 F.2d 454 456, 105 USPQ 233, 235 (CCPA 1955). Where Applicant's range covers such as large portion of the prior art range, it has been held to be obvious to find Applicant's claimed ranges through optimization, especially in view of there being ranges of composition wherein the color of the alloy is only present for certain compositions. In addition, the subjective standard utilized by Applicant to determine the acceptability of the alloy composition blurs the line of where the cut off point of the present invention actually lies. Applicant has not described how tough the alloy is required to be to be considered adequate. Without further defining the standards used, one of ordinary skill in the art is unaware as to exactly where the change in toughness from unacceptable to acceptable is. Thus, it is only routine experimentation to find the best value for a desired property within the broad range of the prior art.

While Applicant has attempted to demonstrate unexpected results to rebut the *prima facie* case of obviousness, the Examiner finds the evidence unconvincing. Particularly, no factual basis is provided for determining what makes an alloy "unacceptable" in performance and what makes an alloy "acceptable". In addition, Applicant's claimed range includes values of Au:Al of as low as 3.66, however, the purported data only provides values as low as 3.85, and only as low as 4.25 with Au and Al alone. The comparison data at an Au:Al of 3.65 provides unsatisfactory performance, thus, there is no evidence that only within the claimed range are unexpected results produced. A showing of unexpected results should be commensurate in scope with the claimed range and reasonably show the entire claimed

range. See MPEP 716.02(d). Thus, the *prima facie* case of obviousness has not been rebutted.

Regarding claim 4, Takiguchi discloses an alloy which contains 70-85 wt% Au, which contains the presently claimed range. It would have been within the expected skill of a routineer in the art to have optimized the content of Au in the alloy of Takiguchi. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

Regarding claim 10 (depends from 1), Takiguchi teaches (see English abstract) making articles from the alloy.

Regarding claim 11 (depends from 10), Takiguchi teaches (see English abstract) making ornamental jewelry articles from the alloy.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takiguchi (JP 59-093847) as applied to claims 1, 4, 10 and 11 above, and further in view of Miyama (JP 62-240729).

While Takiguchi is silent as to the hardness of the Au-Al alloy, the composition of Takiguchi is the same as the presently claimed composition. Therefore, one of ordinary skill in the art would have expected the alloy to have the same hardness as claimed. In support of this position, Miyama discloses (see Derwent abstract) a very similar Au-Al alloy that has a hardness of 240-310 Hv which includes the value given for the hardness of Au_3Al of 250 Hv.

7. Claims 5, 6, 8, 9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyama (JP 62-240729).

Regarding claim 5, Miyama teach (see English abstract) a purple colored Au-Al alloy for jewelry that contains 17-30 wt% Al, 7-30 wt% Ni, Co or Pd and the rest Au. Thus, Miyama fail to meet the claimed range of Ni or Pd. However, Miyama teaches (col. 2, lines 1-5, orally translated by USPTO) that the function of Ni and Pd was to adjust the color of the alloy to a desired shade. Therefore, it would have been obvious to one of ordinary skill in the art to have reduced the amount of Ni or Pd added below 7 wt% in order to achieve a different desired color, such as by reducing the Ni or Pd to below 2 wt% or 4 wt%, respectively, as claimed. It is well settled that omission of an element and its function where not needed is obvious. *Ex parte Rainu*, 168 USPQ 375 (PTO Bd. App. 1969) and *In re Karlson*, 136 USPQ 184 (CCPA 1963).

Regarding claim 6, it would have been within the expected skill of a routineer in the art to have optimized the content of Al within the broad range of Miyama. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

Regarding claims 8 and 9, Miyama teaches (col. 2, lines 1-5, orally translated by USPTO) that the function of Ni and Pd was to adjust the color of the alloy to a desired shade. Therefore, it would have been obvious to one of ordinary skill in the art to have reduced the amount of Ni or Pd added below 7 wt% in order to achieve a different desired color, such as by reducing the Ni or Pd to 1-2 wt% or 0.5-4 wt%, respectively, as claimed. It is well settled that omission of an element and its function where not needed is obvious. *Ex parte Rainu*, 168 USPQ 375 (PTO Bd. App. 1969) and *In re Karlson*, 136 USPQ 184 (CCPA 1963).

Regarding claim 13, Miyama teach (see English abstract) a purple colored Au-Al alloy for jewelry that contains 17-30 wt% Al, 7-30 wt% Ni, Co or Pd and the rest Au. Thus, Miyama fail to meet the claimed range of Ni or Pd. However, Miyama teaches (col. 2, lines 1-5, orally translated by USPTO) that the function of Ni and Pd was to adjust the color of the alloy to a desired shade. Therefore, it would have been obvious to one of ordinary skill in the art to have reduced the amount of Ni or Pd added below 7 wt% in order to achieve a different desired color, such as by reducing the Ni or Pd to 0-2 wt% or 0-4 wt%, respectively, as claimed. It is well settled that omission of an element and its function where not needed is obvious. *Ex parte Rainu*, 168 USPQ 375 (PTO Bd. App. 1969) and *In re Karlson*, 136 USPQ 184 (CCPA 1963).

Regarding claims 14 and 15, Miyama teaches (col. 2, lines 1-5, orally translated by USPTO) that the function of Ni and Pd was to adjust the color of the alloy to a desired shade. Therefore, it would have been obvious to one of ordinary skill in the art to have reduced the amount of Ni or Pd added below 7 wt% in order to achieve a different desired color, such as by reducing the Ni or Pd to 1-2 wt% or 0.5-4 wt%, respectively, as claimed. It is well settled that omission of an element and its function where not needed is obvious. *Ex parte Rainu*, 168 USPQ 375 (PTO Bd. App. 1969) and *In re Karlson*, 136 USPQ 184 (CCPA 1963).

Response to Arguments

8. Applicant's arguments filed 10 July 2003 have been fully considered but they are not persuasive. Applicant has argued that the criticality of the present claim limitations has been shown.

In response to Applicant's argument, the Examiner disagrees. Particularly, the comparison data shows that at a Au:Al ratio of 3.65 the alloy is "hard, brittle and has surface fractures". However at a Au:Al ratio of 4.26, the alloy is tough and hard. It is unclear how, by changing the ratio of Au:Al from 3.65 to 3.66, the properties of the alloy are changed from unsatisfactory to satisfactory. Thus, Applicant has not demonstrated the criticality of the ratio commensurate in scope with the claimed range. See MPEP 716.02(d). Applicant has not shown to criticality of the presently claimed ranges of Ni and Pd. The Examiner has established why one of ordinary skill in the art would have been motivated to reduce the amount of Ni and/or Pd below the range disclosed by Miyama. These grounds have not been rebutted, and no comparison data has been provided showing any unexpected results only within the presently claimed range.

Therefore, the *prima facie* case of obviousness has not been overcome. Accordingly, this rejection is made final.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D Wilkins, III whose telephone number is 703-305-9927. The examiner can normally be reached on M-Th 10:00am-8:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 703-308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Harry D Wilkins, III
Examiner
Art Unit 1742

hdw
August 15, 2003

ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700